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AMENDMENTS TO THE SPECIFICATION

Please amend paragraph 0001 as follows:

[0001] This application is a continuation-in-part of U.S. Application number 09/486,167, filed August 15, 2000, now U.S. Patent No. 6,759,194, which is the U.S. National Phase under 35 U.S.C. § 371 of International Application PCT/BE98/00124, filed August 20, 1998 which claims priority of Belgian application BE 9700692, filed August 20, 1997. Each of the above applications is incorporated herein by reference.

Please amend paragraph 0024 as follows:

[0024] The present invention is also related to the isolated and purified polypeptide sequence corresponding to the amino acid sequence SEQ ID NO: 2 or a portion thereof, preferably an immunoreactive portion (putative immunogenic domain or T or B cell epitopes).

Said portions are advantageously comprised between:

- Glutamic acid position ~~13~~ 14 - Glutamic acid position ~~27~~28
- Alanine position ~~26~~ 27 - Leucine position ~~36~~37
- Alanine position ~~42~~ 43 - Glutamic acid position ~~57~~ 58
- Glutamic acid position ~~57~~ 58 - Valine position ~~69~~ 70
- Valine position ~~80~~ 81 - Leucine position ~~97~~ 98
- Arginine position ~~95~~ 96 - Leucine position ~~112~~ 113
- Serine position ~~118~~ 119 - Serine position ~~129~~ 130
- Valine position ~~137~~ 138 - Threonine position ~~150~~151.

Please amend paragraph 0098 as follows:

[0098] An amino analysis of the complete human PRDX5 amino acid sequence shows that said polypeptide presents specific portions showing an homology with other antioxidant enzymes (starting from a Leucine at position ~~36~~ 37 until a Cysteine at position ~~47~~48) and an other portion having an important homology with beta chains of ATP synthase (starting from a Glutamic acid at position ~~13~~ 14 until a Glycine in position ~~38~~39).

Please amend paragraph 0100 as follows:

[0100] Furthermore, the Inventors have identified a portion of the PRDX5 human polypeptide which presents an homology with a Cyclophilin-binding domain of Candida boidinii PMP20 (preceptor1 of the immuno-suppressant drug cyclosporine A). Said possible Cyclophilin-binding domain is starting from the Threonine in position ~~150~~ 151 until the Leucine in position ~~161~~162.

Please amend paragraph 0107 as follows:

[0107] Unknown genes linked to different disorders have been ~~localised~~localized in the same region of chromosome 11. Therefore, the PRDX5 gene is possibly associated with these disorders:

- atopy (atopic hypersensitivity: asthma, hay fever, and eczema; MIM No 147050 at OMIM of NCBI internet site),
- high bone mass syndrome (MIM No 601884),
- ~~osteopetrosis~~osteoporosis (MIM No 259700),
- osteoporosis-pseudoglioma syndrome (MIM No ~~259770~~601884) and
- Bardet-Biedl syndrome 1 (MIM No 209901).

Please amend paragraph 0120 as follows:

[0120] Recombinant PRDX5 contains the last ~~214~~ 162 amino acids of the C-terminal part of the native human PRDX5 and contains the predicted peroxisomal addressing sequence as well as the catalytic site but is lacking the N-terminal predicted mitochondrial addressing sequence of the native molecule (Knoops et al., 1999, J. Biol. Chem. 274:30451-30548; Declercq et al., 2001, J. Mol. Biol. 311:751-9). PRDX5. Amino acid sequence of the mutated PRDX5 is similar to PRDX5 but with cysteine in position ~~47~~ 48 replaced by a serine within the catalytic site of the molecule. Native and mutated PRDX5 were produced as previously described. N-acetylcysteine, catalase and catalase-PEG were used as reference anti-oxidant agents with hydrogen peroxide scavenging properties (Liu et al., 1989, Am. J. Physiol. 256:H589-93; He et al., 1993, Am. J. Physiol. 265:H252-6).